

## Notice to Installers

The servicing instructions in this notice are for use by qualified service personnel only. To reduce risk of electric shock, do not perform any servicing other than that contained in the operating instructions, unless you are qualified to do so.



### Note to System Installer

For this apparatus, the coaxial cable shield/screen shall be grounded as close as practical to the point of entry of the cable into the building. For products sold in the US and Canada, this reminder is provided to call the system installer's attention to Article 820-93 and Article 820-100 of the NEC (or Canadian Electrical Code Part 1), which provides guidelines for proper grounding of the coaxial cable shield.



This symbol is intended to alert you that uninsulated voltage within this product may have sufficient magnitude to cause electric shock. Therefore, it is dangerous to make any kind of contact with any inside part of this product.

Ce symbole a pour but d'alerter toute personne qu'un contact avec une pièce interne de ce produit, sous tension et non isolée, pourrait être suffisant pour provoquer un choc électrique. Il est donc dangereux d'être en contact avec toute pièce interne de ce produit.



CAUTION: To reduce the risk of electric shock, do not remove cover (or back). No user-serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.



This symbol is intended to alert you of the presence of important operating and maintenance (servicing) instructions in the literature accompanying this product.

Ce symbole a pour but de vous avertir qu'une documentation importante sur le fonctionnement et l'entretien accompagne ce produit.

20070131 SysInstaller 820 US/Canada/Intl

## IMPORTANT SAFETY INSTRUCTIONS

### Read These Instructions

### Keep These Instructions

### Heed All Warnings

### Follow All Instructions

#### Power Source Warning

A label on this product indicates the correct power source for this product. Operate this product only from an electrical outlet with the voltage and frequency indicated on the product label. If you are uncertain of the type of power supply to your home or business, consult your service provider or your local power company.

The AC inlet on the unit must remain accessible and operable at all times.

#### Ground the Product



**WARNING:**  
Avoid electric shock and fire hazard! Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

If this product connects to coaxial cable wiring, be sure the cable system is grounded (earthed). Grounding provides some protection against voltage surges and built-up static charges.

#### Outdoor Grounding System

If this product connects to an outdoor antenna or cable system, be sure the antenna or cable system is grounded (earthed). This provides some protection against voltage surges and built-up static charges.

Article 810 of the National Electric Code (NEC) ANSI/NFPA No. 70-1990, provides the following information:

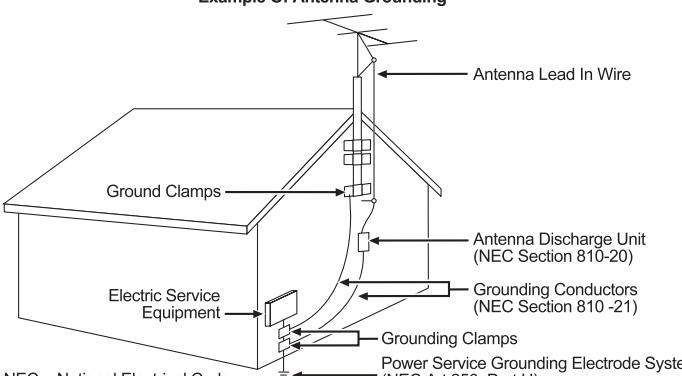
- Grounding of the mast and supporting structure
- Grounding the lead-in wire to an antenna discharge unit
- Size of the grounding conductors
- Location of the antenna-discharge unit
- Connection to grounding electrodes
- Requirements for the grounding electrodes (see the following antenna grounding diagram as recommended by NEC ANSI/NFPA 70)

**WARNING:**  
Avoid electric shock and fire hazard! Do not locate an outside antenna system in the vicinity of overhead power lines or power circuits. Touching power lines or circuits might be fatal.

#### Protect the Product from Lightning

For added protection, unplug this apparatus during lightning storms or when unused for long periods of time. In addition to disconnecting the AC power from the wall outlet, disconnect the signal inputs.

#### Example Of Antenna Grounding



Antenna Lead In Wire  
Ground Clamps  
Antenna Discharge Unit (NEC Section 810-20)  
Grounding Conductors (NEC Section 810-21)  
Electric Service Equipment  
Grounding Clamps  
Power Service Grounding Electrode System (NEC Art 250, Part H)

T11518

**WARNING:**  
Avoid electric shock and fire hazard! Only use attachments/accessories specified by your service provider or the manufacturer.

#### Service Warnings

**WARNING:**  
Avoid electric shock! Do not open the cover of this product. Opening or removing the cover may expose you to dangerous voltages. If you open the cover, your warranty will be void. This product contains no user-serviceable parts. Refer all servicing to qualified service personnel.

Servicing is required when the apparatus has been damaged in any way, such as a power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

# Explorer 8540HDC DVR and 8550HDC DVR with Multi-Stream CableCARD Interface



#### Check Product Safety

Upon completion of any service or repairs to this product, the service technician must perform safety checks to determine that this product is in proper operating condition.

#### Protect the Product when Moving It

Always disconnect the power source when moving the apparatus or connecting or disconnecting cables.



**WARNING:**  
Avoid personal injury and damage to this product! Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

20070320 Set-Top Cable US & Canada

#### FCC Compliance

##### United States FCC Compliance

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy. If not installed and used in accordance with the instructions, it may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment OFF and ON, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna, if applicable.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the cable company or an experienced radio/television technician for help.

Any changes or modifications not expressly approved by Scientific-Atlanta, Inc., could void the user's authority to operate the equipment.

The information shown in the FCC Declaration of Conformity paragraph below is a requirement of the FCC and is intended to supply you with information regarding the FCC approval of this device. The phone numbers listed are for FCC-related questions only and not intended for questions regarding the connection or operation for this device. Please contact your cable service provider for any questions you may have regarding the operation or installation of this device.

#### FC Declaration of Conformity

This device complies with Part 15 of FCC Rules. Operation is subject to the following two conditions: 1) the device may not cause harmful interference, and 2) the device must accept any interference received, including interference that may cause undesired operation.

Explorer 8540HDC and 8550HDC Digital Video Recorder  
Model: 8540HDC and 8550HDC  
Manufactured by: Scientific-Atlanta, Inc.  
5030 Sugarloaf Parkway  
Lawrenceville, Georgia 30044 USA  
Telephone: 770-236-1077

#### Canada EMI Regulation

This Class B digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

20060628 FCC Standard

#### Disclaimer

Scientific-Atlanta, Inc. assumes no responsibility for errors or omissions that may appear in this guide. Scientific Atlanta reserves the right to change this guide at any time without notice.

#### AVC VIDEO LICENSE

With respect to each AVC/MPEG-4/H.264 product, Scientific Atlanta is obligated to provide the following notice:

THIS PRODUCT IS LICENSED UNDER THE AVC PATENT PORTFOLIO LICENSE FOR THE PERSONAL AND NON-COMMERCIAL USE OF A CONSUMER TO (i) ENCODE VIDEO IN COMPLIANCE WITH THE AVC STANDARD ("AVC VIDEO") AND/OR (ii) DECODE AVC VIDEO THAT WAS ENCODED BY A CONSUMER ENGAGED IN A PERSONAL AND NON-COMMERCIAL ACTIVITY AND/OR WAS OBTAINED FROM A VIDEO PROVIDER LICENSED TO PROVIDE AVC VIDEO. NO LICENSE IS GRANTED OR SHALL BE IMPLIED FOR ANY OTHER USE.

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[www.scientificatlanta.com](http://www.scientificatlanta.com)

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September 2007

Printed in United States of America

Part Number 4012390 Rev A

## Welcome

The Explorer® 8540HDC™ and 8550HDC™ DVR Set-Top with a Multi-Stream CableCARD™ (M-Card™) delivers high-definition programming in exceptional picture and audio quality. The M-Card provides system security and authorization of digital services. Through these DVR set-tops, you can access interactive services, such as video-on-demand and pay-per-view programs. Contact your service provider for information about these and other available services. Use the instructions in this guide to install the 8540HDC or 8550HDC and to access your program services.

**Important!** If the M-Card is removed, the set-top will not operate correctly.

For more information about this product, visit our website:  
[www.scientificatlanta.com/products/consumers/new\\_cableboxes.htm](http://www.scientificatlanta.com/products/consumers/new_cableboxes.htm)

## Safety First

Before using this DVR read the **IMPORTANT SAFETY INSTRUCTIONS** section of this guide.

## Watch TV

Press the following remote control keys to access services and programs:

- Guide—Display the on-screen program guide
- Arrows—Highlight a program in the schedule
- Info—Display program description
- Select—Watch a specific program in the guide

## Avoid Screen Burn-In!

Images such as letterbox bars or side bars, bright closed-captioning backgrounds, station logos, or any other stationary images may cause the HDTV screen to age unevenly and cause damage to your HDTV. Refer to the user's guide that came with your HDTV for more information about screen burn-in.

## Automatic Software Updates

A message appears on the TV screen when the DVR and the M-Card module are receiving software updates. In addition, download information appears on the front panel of the DVR during these updates. Wait for the current time to appear on the front panel before continuing. When the time appears, the update is complete.

**Note:** If you need further assistance, contact your service provider.

## Performance Tips

If the DVR does not perform as expected, the following tips may help.

### No picture

- Verify that the M-Card module is installed.
- Verify that the power to your TV is turned on.
- If the DVR is plugged into a wall switch, verify the switch is in the ON position. (Avoid plugging into an outlet that is controlled by a wall switch.)
- Verify that all cables are properly connected.
- The current channel may not be available in your service package.

Try selecting another channel to see if a picture appears.

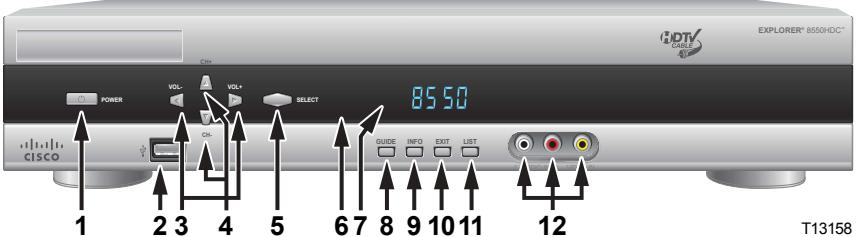
### No color

- Verify that the HDTV is in HD mode. If necessary, re-run the HDTV Setup Wizard to select HD mode.
- Verify the current TV program is broadcast in color.
- Adjust the TV color controls.

### No sound

- If your setup includes a VCR or stereo, verify that you have properly connected them to the DVR.
- Verify the volume is turned up.
- Verify the mute function is not on.

## Explorer 8550HDC Front Panel



**Note:** This illustration may vary from the actual product.

**1 Power** Turns the DVR on and off

**2 USB** Connects to external USB devices (Reserved for future use)

**3 VOL +, VOL -** Increases and decreases the volume

**4 CH+, CH -** Scrolls through the channels

**5 Select** Accesses your on-screen selection

**6 IR Sensor** Receives the infrared signal from the remote control

**7 LED Display** Displays the selected channel number and time of day. The LED also displays the following:

- Message (✉)
- HDTV
- Power (⌚)
- Output Resolution (1080i, 720p, 480p, or 480i)
- AUTO - Automatically outputs native scan rates that your TV can accept

**8 Guide** Accesses the on-screen guide, video-on-demand, or pay-per-view features

**9 Info** Displays a description of the selected program. This button is available from the on-screen guide and while viewing a program

**10 Exit** Exits menus, the on-screen guide, and program information

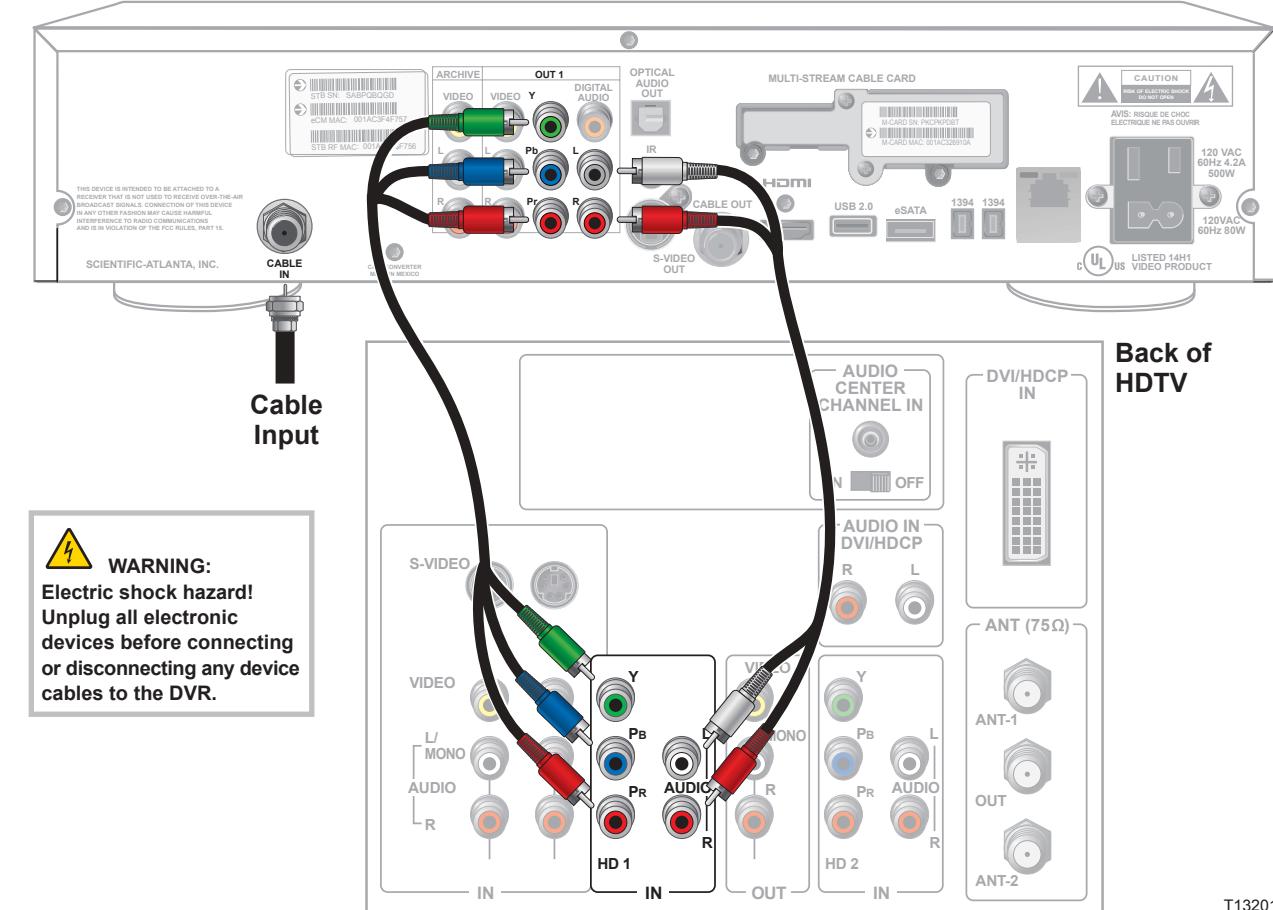
**11 List** Displays the Recorded List

**12 Video and Audio Input** Not available on all models. Connects to video and left/right (L/R) audio outputs from a TV or other device. (Not available on 8540HDC)

### Safety and Performance Tips

- Keep the top of the DVR free of all objects and electronic devices, including your TV.
- Always set the DVR on its feet, never on its side.

## Connection Example



## Connecting to an HDTV with Component Input (YPbPr)

1. Insert the M-Card module if not already installed.
2. Connect the DVR to the coaxial cable coming from the wall.
3. Connect the Y (green) connector on the HDTV to the Y (green) connector on the DVR; connect the Pb (blue) connector on the HDTV to the Pb (blue) connector on the DVR; and connect the Pr (red) connector on the HDTV to the Pr (red) connector on the DVR.
4. Connect the left audio (white) connector on the HDTV to the left audio (white) connector on the DVR, and connect the right audio (red) connector on the HDTV to the right audio (red) connector on the DVR.
5. Plug the DVR and the HDTV into an AC power source. Do not press the Power key on the DVR yet.

**Important:** To potentially protect the DVR from power surge damage, ground (earth) your cable product to provide some protection against voltage surges and built-up static charges. You may be able to reduce the risk of damage from voltage surges, which can be caused by lightning storms and power outages, by plugging the DVR into a surge protector.

6. Wait several minutes for the DVR to receive the latest software, programming, and service information. One of the following will appear on the front panel of the DVR:

- Current time: The update is complete.
- Four dashes (----): Call your service provider to get the DVR authorized.

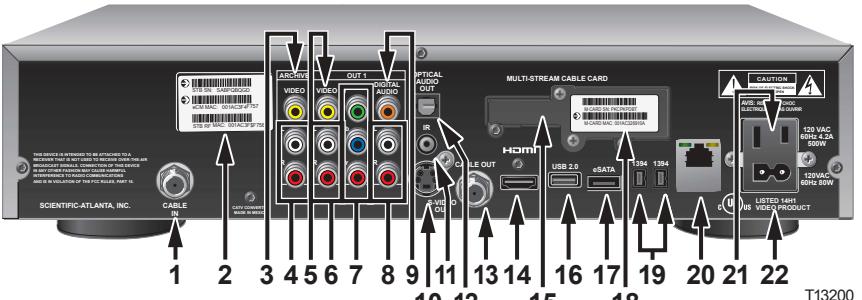
7. To begin watching TV, turn on the HDTV and press Power on the front panel of the DVR, or press Power on the remote control.

## U.S. Patents

A patent notice is affixed to this product. In addition, the product may also be covered by one or more of the following patents:

4,498,169; 4,692,919; 4,748,667; 4,829,569; 4,866,770; 4,885,775; 4,888,799; 4,890,319; 4,922,456; 4,922,532; 4,924,498; 4,965,534; 4,991,011; 5,003,384; 5,012,510; 5,029,207; 5,045,816; 5,053,883; 5,054,071; 5,058,160; 5,142,575; 5,142,690; 5,146,526; 5,155,590; 5,214,390; 5,225,902; 5,225,925; 5,235,619; 5,237,610; 5,239,540; 5,241,610; 5,247,364; 5,255,086; 5,257,403; 5,267,071; 5,270,809; 5,271,041; 5,272,752; 5,282,028; 5,285,497; 5,287,351; 5,301,028; 5,309,514; 5,317,391; 5,319,709; 5,341,425; 5,347,388; 5,347,389; 5,357,276; 5,359,601; 5,361,156; 5,367,571; 5,379,141; 5,379,145; 5,381,481; 5,390,337; 5,400,401; 5,406,558; 5,418,782; 5,420,866; 5,420,923; 5,425,101; 5,426,404; 5,430,568; 5,434,610; 5,436,749; 5,438,370; 5,440,632; 5,442,472; 5,455,570; 5,457,701; 5,471,492; 5,477,199; 5,477,262; 5,477,282; 5,477,370; 5,481,389; 5,481,542; 5,485,221; 5,493,339; 5,497,187; 5,500,758; 5,502,499; 5,506,904; 5,519,780; 5,539,822; 5,550,825; 5,579,055; 5,579,057; 5,583,562; 5,592,551; 5,596,606; 5,600,378; 5,602,933; 5,640,388; 5,657,414; 5,675,575; 5,684,876; 5,715,515; 5,724,525; 5,734,822; 5,740,300; 5,742,677; 5,754,940; 5,757,416; 5,771,064; 5,774,859; 5,825,829; 5,826,167; 5,850,305; 5,854,703; 5,870,474; 5,892,607; 5,920,626; 5,923,755; 5,930,024; 5,930,515; 5,937,067; 5,963,352; 5,968,163; 5,982,424; 5,991,139; 5,999,207; 6,005,631; 6,005,938; 6,016,163; 6,028,941; 6,029,046; 6,052,384; 6,055,244; 6,072,532; 6,105,134; 6,148,039; 6,157,719; 6,188,729; 6,195,389; 6,212,278; 6,215,530; 6,219,358; 6,240,103; 6,243,145; 6,246,767; 6,252,964; 6,272,226; 6,292,081; 6,292,568; 6,320,131; 6,374,275; 6,405,239; 6,411,602; 6,417,949; 6,424,714; 6,424,717; 6,433,906; 6,438,139; 6,463,586; 6,467,091; 6,476,878; 6,493,876; 6,510,519; 6,516,002; 6,516,412; 6,526,508; 6,538,595; 6,546,013; 6,560,340; 6,567,118; 6,622,308; 6,629,227; 6,664,984; 6,667,994; 6,671,879; 6,674,967; 6,678,891; 6,714,598; 6,721,352; 6,721,956; 6,725,459; 6,738,982; 6,744,892; 6,744,967; 6,751,271; 6,760,918; 6,795,972; 6,802,077; 6,804,708; 6,811,447; 6,817,028; 6,822,972; 6,823,385; 6,832,386; 6,845,106; 6,868,473; 6,874,075; 6,889,191; 6,909,471; 6,917,622; 6,922,412; 6,927,806; 6,928,656; 6,931,058; 6,937,729; 6,969,279; 6,971,008; 6,971,121; 6,978,310; 6,986,156; 6,988,900; 6,996,838; 7,010,801; 7,053,960; 7,065,213; 7,069,578; 7,069,572; D348065; D354959; D359737; D363932; D390217; D434753; D507240; D507535; D513407; D516518; RE36368; RE36988

## Explorer 8550HDC Back Panel



**Note:** This illustration may vary from the actual product.

**1 Cable In** Connects to a coaxial cable that delivers the signal from your service provider

**2 Set-Top Bar Code Label** Contains set-top serial number and MAC addresses

**3 Archive Video** Connects to a video input of an archive device

**4 L-R Audio Archive** Connects to an audio input of an archive device

**5 Video 1 (Composite)** Connects to a video input of another device, such as a TV or VCR

**6 Audio Out (Left/Right)** Connects to RCA cables that send analog audio signals (left/right) to a stereo receiver or TV with stereo inputs

**7 YPbPr** Connects to the component video input (YPbPr) on an HDTV. Do not use these cables if you are using the HDMI connection

**8 Out 2 (Secondary Audio Out)** Connects to either a VCR or to another set of inputs (composite) on your TV

**9 Digital Audio Out** Connects to an RCA cable that sends a digital audio signal to a surround-sound receiver or other digital audio device

**10 S-Video Out** Connects to S-Video input of a standard TV or VCR

**11 IR** Connector reserved for future use

**12 Optical Audio Out** Connects to an optical cable that sends a digital audio signal to a surround-sound receiver or other digital audio device

**13 Cable Out** Connects to a coaxial cable that sends analog audio and video signals to a TV or VCR. These signals are SDTV video and stereo audio

**14 HDMI** Connects an HDMI™ cable to the HDMI input of an HDTV. HDMI supports both digital audio and video. May be used to connect to a DVI interface using an HDMI-to-DVI adapter for video and separate audio connections. Any of the following audio connections may be used: Digital Audio Out (9); Audio Out: Left, Right (6); or Optical Audio Out (12)

**15 M-CARD** Installed by your service provider

**16 USB 2.0** Connects to external USB devices (Reserved for future use)

**17 eSATA** Connects to an external Serial ATA (eSATA) hard disk drive for expanded drive space. A connected eSATA drive is not an archival device. Ask your service provider for a list of approved hard drive models for use with the DVR

**18 M-CARD Code Label** Contains M-CARD serial number and MAC address

**19 1394** Connects to display devices equipped with a 1394 input

**20 Ethernet** Connects to an Ethernet-equipped device (Reserved for future use)

**21 AC Outlet** Connects to the AC power cord from another device, such as a TV

**22 AC Power Input** Connects to the power cord to deliver power to the set-top